Claim Amendments

Please enter the following amendments, which include cancellation of claims 4, 7-8, 10-20, and 26-43, amendment of claims 21 and 23, and addition of claims 44-52.

1 (original): A method of preventing binding of an anti-double stranded (ds)-DNA antibody to a neuron in a mammal exhibiting or at risk for lupus-induced cognitive dysfunction, wherein the anti-ds-DNA antibody binds to an NR2 subunit of an NMDA receptor on the neuron, the method comprising treating the mammal with at least one peptide or mimetic in an amount effective to bind to the antibody, wherein the peptide or mimetic comprises an amino acid sequence of X1-Trp-X1-Tyr-X2, wherein X1 represents Asp or Glu, and X2 represents Gly or Ser.

2 (original): The method of claim 1, wherein the peptide or mimetic comprises D-amino acids.

3 (original): The method of claim 1, wherein the peptide or mimetic is 5-30 amino acids in length.

4 (canceled)

5 (original): The method of claim 1, wherein the peptide or mimetic is 5 amino acids in length.

6 (original): The method of claim 1, wherein the peptide or mimetic comprises Asp-Trp-Glu-Tyr-Ser.

7-8 (canceled)

9 (original): The method of claim 1, wherein the neuron is a hippocampal neuron.

10-20 (canceled)

21 (currently amended): The method of claim ~~10~~ _1_, wherein the risk for lupus-induced cognitive dysfunction is determined by determining whether the mammal has anti-NR2 antibodies, wherein the presence of anti-NR2 antibodies indicates that the mammal is at risk for lupus-induced cognitive dysfunction.

22 (original): The method of claim 21, wherein the cerebrospinal fluid is tested for the presence of anti-NR2 antibodies.

23 (currently amended): A method of inhibiting progression of cognitive dysfunction in a mammal exhibiting or at risk for lupus-induced cognitive dysfunction, the method comprising treating ~~the brain of~~ the mammal with an agent that prevents binding of an anti-ds-DNA antibody to an NR2 subunit of an NMDA receptor of a neuron.

24 (original): The method of claim 23, wherein the agent is an antibody or an aptamer that binds to the NMDA receptor on a neuron but does not induce neuronal death.

25 (original): The method of claim 23, wherein the neuron is in the hippocampus.

26-43 (canceled)

44 (new): The method of claim 1, wherein the peptide or mimetic is administered to the brain of the mammal.

45 (new): The method of claim 23, wherein the agent is administered to the brain of the mammal.

46 (new): A method of determining whether a patient is at risk for lupus-induced cognitive dysfunction, the method comprising determining whether the patient has anti-NR2 antibodies, wherein the presence of anti-NR2 antibodies indicates that the patient is at risk for lupus-induced cognitive dysfunction.

47 (new): The method of claim 46, wherein the cerebrospinal fluid is tested for the presence of anti-NR2 antibodies.

48 (new): The method of claim 46, wherein the peripheral blood is tested for the presence of anti-NR2 antibodies.

49 (new): The method of claim 46, the method further comprising treating the patient with an agent that prevents binding of an anti-NR2 antibody to an NR2 subunit of an NMDA receptor of a neuron if the patient is at risk for lupus-induced cognitive dysfunction.

50 (new): The method of claim 49, wherein the agent is at least one peptide or mimetic that comprises an amino acid sequence of X1-Trp-X1-Tyr-X2, wherein X1 represents Asp or Glu, and X2 represents Gly or Ser.

51 (new): The method of claim 50, wherein the peptide or mimetic comprises Asp-Trp-Glu-Tyr-Ser.

52 (new): The method of claim 46, the method further comprising treating the patient with an agent that inhibits death of a neuron that comprises a bound anti-ds-DNA antibody on an NR2 subunit of an NMDA receptor on the neuron if the patient is at risk for lupus-induced cognitive dysfunction.